

PTO/SB/21 (02-04)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Application Number	10/750,162
Filing Date	12/30/2003
First Named Inventor	Buehler
Art Unit	
Examiner Name	
Attorney Docket Number	CIT001

Total Number of Pages in This Submission

**ENCLOSURES (Check all that apply)**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input checked="" type="checkbox"/> Information Disclosure Statement<br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Response to Missing Parts/<br>Incomplete Application<br><input type="checkbox"/> Response to Missing Parts<br>under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a<br>Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br>Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance communication<br>to Technology Center (TC)<br><input type="checkbox"/> Appeal Communication to Board<br>of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to TC<br>(Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please<br>Identify below):<br>Prior Art Documents |
|---|--|--|

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	CARY TOPE-MCKAY
Signature	
Date	01/19/2005

**CERTIFICATE OF TRANSMISSION/MAILING**

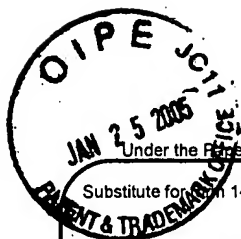
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	CARY TOPE-MCKAY
-----------------------	-----------------

Signature		Date	01/19/2005
-----------	--	------	------------

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Substitute for Form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

### Complete if Known

Application Number	10/750,162
Filing Date	12/30/2003
First Named Inventor	Buehler
Art Unit	
Examiner Name	
Attorney Docket Number	CIT001

Sheet	1	of	2
-------	---	----	---

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	Samuel P. Kounaves, Stefan R. Lukow, Brian P. Comeau, Michael H. Hecht, Sabrina M. Grannan-Feldman, Ken Manatt, Steven J. West, Xiaowen Wen, Martin Frant, and Tim Gillette, "The MSP01 MECA Wet Chemistry Lab: Sensor Evaluation", Journal of Geophysical Research (Planets) September 2002	
	2	Mark Kolody, Martin G. Buehler, Gregory M. Kuhlman, Didier Keymeulen, and Nosang V. Myung, and Samuel P. Kounaves, "Planar REDOX and Conductivity Sensors for ISS Water Quality Measurements" 2003 IEEE Aerospace Conference, 2003, Vol. 1, cat. No. 02TH8593C.	
	3	A. J. Bard and L. R. Faulkner, "Electrochemical Methods: Fundamentals and Applications, Second Edition", Wiley & Sons (New York, 2001).	
	4	J. Wang, Analytical Electrochemistry, Wiley-VCH, New York, 2000.	
	5	D. Diamond and V. C. A. Hanratty, Spreadsheet Applications in Chemistry using Microsoft Excel, J. Wiley & Sons (New York, 1997).	
	6	M. Pourbaix, "Atlas of Electrochemical Equilibria in Aqueous Solutions", Nation Association of Corrosion Engineers (Houston, TX 1974).	
	7	M. G. Buehler and W. R. Thurber, "A Planar Four-Probe Test Structure for Measuring Bulk Resistivity," IEEE Trans. On Electron Devices, Vol. ED-23, pp. 968-974.1976.	
	8	M. G. Buehler, G. M. Kuhlman, D. Keymeulen, and S. Kounaves, "Advanced Electronic Tongue Concept", 2002 IEEE Aerospace Conference, 2002, Vol. 1, cat. No. 02TH8593C.	
	9	Handbook of Chemistry and Physics, Electrochemical Series, No. 74, CRC Press (Bocaron, 1994)	
	10	"Microfabricated Heavy Metal Ion Sensor", G. T. A. Kovacs, C. W. Storment, and S. P. Kounaves, Sensors and Actuators B, 1995, 23, 41-47.	

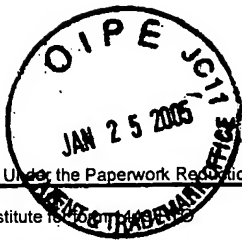
Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1001

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/750,162
Filing Date	12/30/2003
First Named Inventor	Buehler
Art Unit	
Examiner Name	
Attorney Docket Number	CIT001

Sheet 1 of 2

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	11	Y. Sakano, K. D. Pickering, P. F. Strom, and L. J. Kerkhof, "Spatial Distribution of Total, Ammonia-Oxidizing, and Denitrifying Bacteria in Biological Wastewater Treatment Reactors for Bioregenerative Life Support", Applied And Environmental Microbiology, May 2002, p. 2285—2293 Vol. 68, No.	
	12	S. J. Nest, X. Wen, R. Geis, J. Herdan, T. Gillette, M. H. Hecht, W. Schubert, S. Grannan, S. P. Kounaves, "Electrochemistry on Mars," American Laboratory 31 (20), p. 48, Oct. 1999	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.